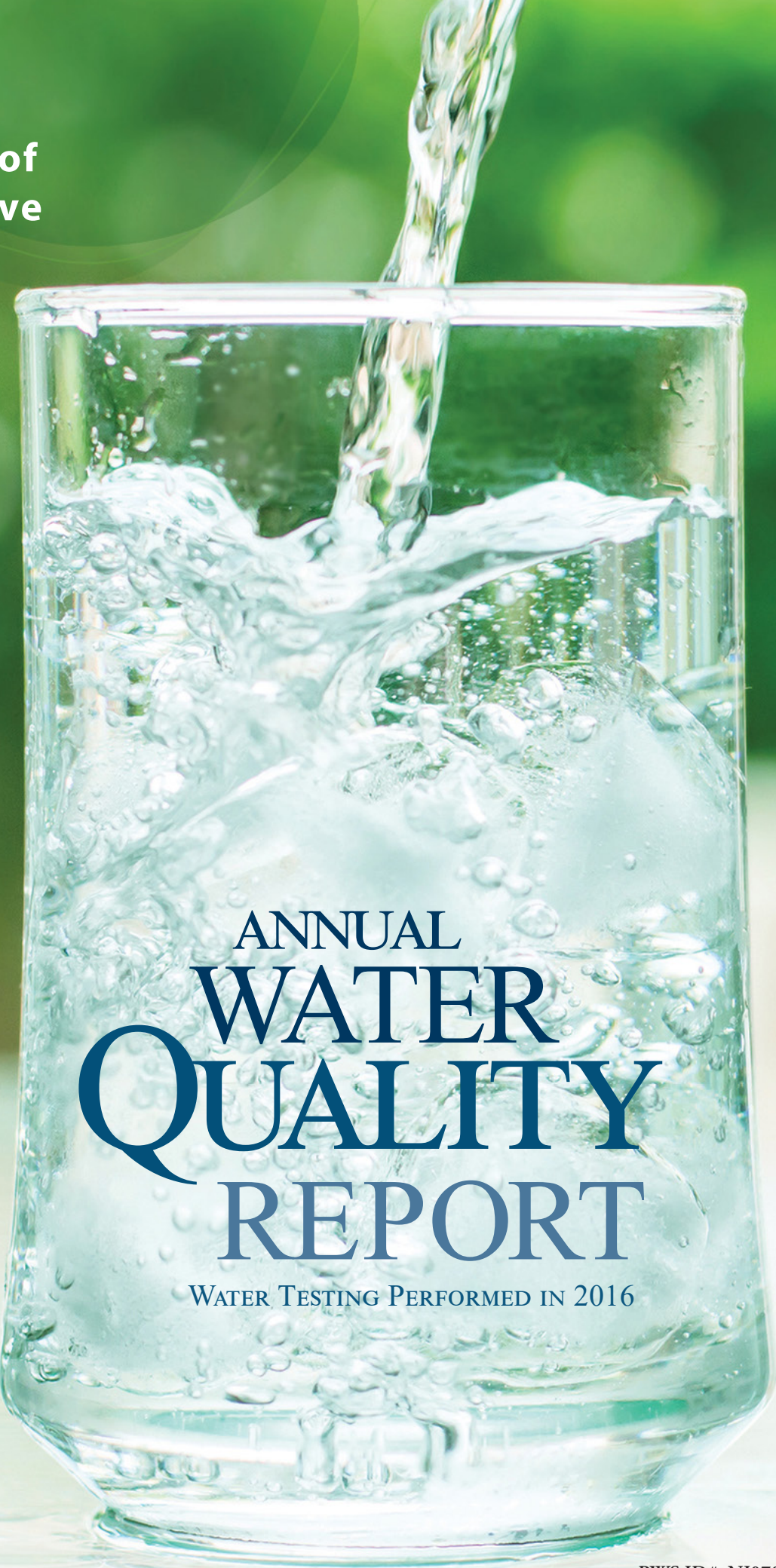


Presented By
**Township of
Cedar Grove**



ANNUAL
WATER
QUALITY
REPORT

WATER TESTING PERFORMED IN 2016

We've Come a Long Way

Once again we are proud to present our annual water quality report covering the period between January 1 and December 31, 2016. In a matter of only a few decades, drinking water has become exponentially safer and more reliable than at any other point in human history. Our exceptional staff continues to work hard every day—at any hour—to deliver the highest-quality drinking water without interruption. Although the challenges ahead are many, we feel that by relentlessly investing in customer outreach and education, new treatment technologies, system upgrades, and training, the payoff will be reliable, high-quality tap water delivered to you and your family.

For more information about this report, or for any questions relating to your drinking water, please call Alex Palumbo, Township Engineer, at (973) 239-1410, ext. 280.

Lead in Home Plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. We are responsible for providing high-quality drinking water, but we cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/lead.

Where Does My Water Come From?

During 2016, the Township of Cedar Grove received approximately 79 percent of its water from the North Jersey District Water Supply Commission (NJDWSC) and 21 percent from the Passaic Valley Water Commission (PVWC). Although the Township receives water from two purveyors, the source of the water is the same. All of the Township's water is supplied from two sources; the 29.6-billion-gallon Wanaque Reservoir and the 7-billion-gallon Monksville Reservoir, which are both part of the NJDWSC system. In addition, water can be pumped from both the Pompton River and the Ramapo River to the Wanaque Reservoir when necessary. To ensure the safety of the water provided to the consumers, routine monitoring and testing of the rivers, lakes, and streams that supply its reservoir is conducted. Testing is performed at an NJDEP and U.S. EPA Certified Water Quality Laboratory.

Community Participation

You are invited to participate in our public forum and voice your concerns about your drinking water. Regularly scheduled Town Council meetings are held the first Monday of each month, beginning at 8 p.m., in Town Hall, Council Chambers, Second Floor, 525 Pompton Ave, Cedar Grove, N.J.

Source Water Assessment

The New Jersey Department of Environmental Protection (NJDEP) has prepared Source Water Assessment reports and summaries for all public water systems. The Source Water Assessment and related questions for the Township of Cedar Grove (PWS 0704001), North Jersey District Water Supply Commission (PWS ID 1613001), and the Passaic Valley Water Commission (PWS ID 1605002) can be obtained by logging onto NJDEP's source water assessment Web site at <http://www.state.nj.us/dep/swap> or contacting NJDEP's Bureau of Safe Drinking Water at (609) 292-5550. If a system is rated highly susceptible for a contamination category, it does not mean a customer is—or will be—consuming contaminated water. The rating reflects the potential for contamination of source water, not the existence of contamination. Public water systems are required to monitor for regulated contaminants and to install treatment if any contaminants are detected at frequencies and concentrations above allowable levels.

The Source Water Assessment Plan is an assessment of the delineated area around our listed sources through which contaminants, if present, could migrate and reach our source water. It also includes an inventory of potential sources of contamination within the delineated area, and a determination of the water supply's susceptibility to contamination by the identified potential sources. According to the Source Water Assessment Plan, our water system had a susceptibility rating of medium.

Substances That Could Be in Water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material, and substances resulting from the presence of animals or from human activity. Substances that may be present in source water include: Microbial Contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, or wildlife; Inorganic Contaminants, such as salts and metals, which can be naturally occurring or may result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming; Pesticides and Herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses; Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production and may also come from gas stations, urban stormwater runoff, and septic systems; Radioactive Contaminants, which can be naturally occurring or may be the result of oil and gas production and mining activities.

For more information about contaminants and potential health effects, call the U.S. EPA's Safe Drinking Water Hotline at (800) 426-4791.

Cryptosporidium

Cryptosporidium is a microbial pathogen found in surface water throughout the United States. Although filtration removes *Cryptosporidium*, the most commonly-used filtration methods cannot guarantee 100 percent removal. Our monitoring indicates the presence of these organisms in our source water. Current test methods do not allow us to determine if the organisms are viable or capable of causing disease. Ingestion of *Cryptosporidium* may cause cryptosporidiosis, an abdominal infection. Symptoms of infection include nausea, diarrhea, and abdominal cramps. Most healthy individuals can overcome the disease within a few weeks. However, immuno-compromised people, infants and small children, and the elderly are at greater risk of developing life-threatening illness. We encourage immuno-compromised individuals to consult their doctor regarding appropriate precautions to take to avoid infection. *Cryptosporidium* must be ingested to cause disease, and it may spread through means other than drinking water.

PVWC and NJDWSC started the second round of source water monitoring in accordance with the requirements of EPA's Long Term 2 Enhanced Surface Water Treatment Rule. The data collected in 2016 is presented below:

CONTAMINANT	PVWC SOURCE WATERS		NJDWSC SOURCE WATER
	PASSAIC RIVER	POMPTON RIVER	
<i>Cryptosporidium</i> , Oocysts/L	0–0.4	0–0.857	0–0.1
<i>Giardia</i> , Cysts/L	0–1.1	0–1.143	0–0.1

Definitions

AL (Action Level): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

LRAA (Locational Running Annual Average): The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters. Amount Detected values for TTHMs and HAAs are reported as the highest LRAAs.

MCL (Maximum Contaminant Level): The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

MCLG (Maximum Contaminant Level Goal): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

MRDL (Maximum Residual Disinfectant Level): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

MRDLG (Maximum Residual Disinfectant Level Goal): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

NA: Not applicable

ND (Not detected): Indicates that the substance was not found by laboratory analysis.

NTU (Nephelometric Turbidity Units): Measurement of the clarity, or turbidity, of water. Turbidity in excess of 5 NTU is just noticeable to the average person.

ppb (parts per billion): One part substance per billion parts water (or micrograms per liter).

ppm (parts per million): One part substance per million parts water (or milligrams per liter).

removal ratio: A ratio between the percentage of a substance actually removed to the percentage of the substance required to be removed.

RUL (Recommended Upper Limit): RULs are established to regulate the aesthetics of drinking water like appearance, taste and odor.

TON (Threshold Odor Number): A measure of odor in water.

TT (Treatment Technique): A required process intended to reduce the level of a contaminant in drinking water.

Missed Reporting

In 2016, our vendor failed to submit sampling results to NJDEP in the required time frame. The Township of Cedar Grove Water Dept. collects the samples for the vendor and, in turn, the vendor analyzes the samples and submits the results to NJDEP. The Township followed up with the vendor and NJDEP, removing the violation and putting the Township back into compliance.

Test Results

Our water is monitored for many different kinds of contaminants on a very strict sampling schedule. The information below represents only those substances that were detected; our goal is to keep all detects below their respective maximum allowed levels. The State recommends monitoring for certain substances less often than once per year because the concentrations of these substances do not change frequently. In these cases, the most recent sample data are included, along with the year in which the sample was taken.

To ensure that tap water is safe to drink, the U.S. EPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. U.S. Food and Drug Administration regulations establish limits for contaminants in bottled water that must provide the same protection for public health. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as people with cancer undergoing chemotherapy, people who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. The U.S. EPA/CDC (Centers for Disease Control and Prevention) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at (800) 426-4791.

REGULATED SUBSTANCES ¹

SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	MCL [MRDL]	MCLG [MRDLG]	North Jersey District Water Supply Commission		Passaic Valley Water Commission		Township of Cedar Grove		VIOLATION	TYPICAL SOURCE
				AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH		
Barium (ppm)	2016	2	2	0.013	NA	0.024	0.015–0.024	NA	NA	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Chlorine (ppm)	2016	[4]	[4]	1.01	NA	NA	NA	NA	NA	No	Water additive used to control microbes
Chromium (ppb)	2016	100	100	NA	NA	0.60	NA	NA	NA	No	Discharge from steel and pulp mills; Erosion of natural deposits
Fluoride (ppm)	2016	4	4	NA	NA	0.087	0.07–0.087	NA	NA	No	Erosion of natural deposits; Water additive that promotes strong teeth; Discharge from fertilizer and aluminum factories
Haloacetic Acids [HAAs] (ppb)	2016	60	NA	NA	NA	NA	NA	35.8	29.3–35.8	No	By-product of drinking water disinfection
Nickel (ppb)	2016	100	NA	NA	NA	2.75	1.54–2.75	NA	NA	No	Pollution from mining and refining operations; Natural occurrence in soil
Nitrate (ppm)	2016	10	10	0.503	NA	4.05	0.72–4.05	NA	NA	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Selenium (ppb)	2016	50	50	NA	NA	0.74	NA	NA	NA	No	Discharge from petroleum and metal refineries; Erosion of natural deposits; Discharge from mines
TTHMs [Total Trihalomethanes] (ppb)	2016	80	NA	NA	NA	NA	NA	76.5	49.2–76.5	No	By-product of drinking water disinfection
Thallium (ppb)	2016	2	0.5	NA	NA	0.6	NA	NA	NA	No	Leaching from ore-processing sites; Discharge from electronics, glass, and drug factories
Total Organic Carbon (% removal)	2016	TT	NA	NA	NA	NA	51–75	NA	NA	No	Naturally present in the environment
Total Organic Carbon (Removal ratio)	2016	TT	NA	1.0	0.94–1.0	NA	NA	NA	NA	No	Naturally present in the environment
Turbidity ² (NTU)	2016	TT	NA	0.28	NA	0.17	0.03–0.17	NA	NA	No	Soil runoff
Turbidity (Lowest monthly percent of samples meeting limit)	2016	TT = 95% of samples meet the limit	NA	100	NA	100	NA	NA	NA	No	Soil runoff

Tap water samples were collected for lead and copper analyses from sample sites throughout the community.											
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	AL	MCLG	AMOUNT DETECTED (90TH%TILE)	SITES ABOVE AL/TOTAL SITES	VIOLATION	TYPICAL SOURCE				
Copper (ppm)	2016	1.3	1.3	0.0793	0/34	No	Corrosion of household plumbing systems; Erosion of natural deposits				
Lead (ppb)	2016	15	0	2.2	0/34	No	Corrosion of household plumbing systems; Erosion of natural deposits				
SECONDARY SUBSTANCES											
				North Jersey District Water Supply Commission		Passaic Valley Water Commission		Township of Cedar Grove			
SUBSTANCE (UNIT OF MEASURE)	YEAR SAMPLED	RUL	MCLG	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	AMOUNT DETECTED	RANGE LOW-HIGH	EXCEEDANCE	TYPICAL SOURCE
ABS/L.A.S. (ppm)	2016	500	NA	0.07	NA	129	ND–129	NA	NA	No	Common major components of synthetic detergents
Aluminum (ppb)	2016	200	NA	50	NA	NA	15–35	NA	NA	No	Erosion of natural deposits; Residual from some surface water treatment processes
Chloride (ppm)	2016	250	NA	80.2	NA	NA	102–146	NA	NA	No	Runoff/leaching from natural deposits
Color (Units)	2016	10	NA	1	NA	ND	NA	NA	NA	No	Naturally occurring organic materials
Corrosivity (Units)	2016	Noncorrosive	NA	NA	NA	Corrosive	NA	NA	NA	Yes ³	Natural or industrially influenced balance of hydrogen, carbon, and oxygen in the water; Affected by temperature and other factors
Hardness [as CaCO ₃] (ppm)	2016	250	NA	72.4	NA	NA	112–160	NA	NA	No	Naturally occurring
Iron (ppb)	2016	300	NA	7	NA	ND	NA	33.3	NA	No	Leaching from natural deposits; Industrial wastes
Manganese (ppb)	2016	50	NA	ND	NA	NA	2–5	3.29	NA	No	Leaching from natural deposits
Odor (TON)	2016	3	NA	ND	NA	NA	3–16	NA	NA	No	Naturally-occurring organic materials
pH (Units)	2016	6.5–8.5	NA	8.34	NA	NA	7.52–8.33	NA	NA	No	Naturally occurring
Sodium ⁴ (ppm)	2016	50	NA	46.5	NA	NA	55–130	NA	NA	Yes ³	Naturally occurring
Sulfate (ppm)	2016	250	NA	11.1	NA	NA	49–90	NA	NA	No	Runoff/leaching from natural deposits; Industrial wastes
Total Dissolved Solids (ppm)	2016	500	NA	159	NA	NA	313–492	NA	NA	No	Runoff/leaching from natural deposits
Zinc (ppm)	2016	5	NA	ND	NA	NA	0.002–0.004	NA	NA	No	Runoff/leaching from natural deposits; Industrial wastes

¹ Under a waiver granted on December 30, 1998, by the State of New Jersey Department of Environmental Protection, our system does not have to monitor for synthetic organic chemicals/pesticides because several years of testing have indicated that these substances do not occur in our source water. The SDWA regulations allow monitoring waivers to reduce or eliminate the monitoring requirements for asbestos, volatile organic chemicals and synthetic organic chemicals. Our system received monitoring waivers for synthetic organic chemicals and asbestos.

² Turbidity is a measure of the cloudiness of the water. We monitor it because it is a good indicator of the effectiveness of our filtration system. The turbidity rule requires that 95% or more of the monthly samples must be less than or equal to 0.3 NTU (and no sample may exceed 1 NTU).

³ Secondary contaminants are regulated merely to protect the aesthetics of drinking water like taste, appearance, and odor. U.S. EPA has not established adverse health effects associated with exceedances of RULs as they have done for exceedances of MCLs.

⁴ For healthy individuals, the sodium intake from water is not important, because a much greater intake of sodium takes place from salt in the diet. However, sodium levels above the recommended upper limit may be a concern to individuals on a sodium-restricted diet.